

This inspection report has been prepared on the basis of information provided by Executive Engineer, Electricity Distribution Division, Roorkee (Urban). The office of the Principal Accountant General (Audit) Uttarakhand, Dehradun disclaims any responsibility for any misinformation, non submission or submission of incomplete records.

Audit inspection of accounting records of Executive Engineer, Electricity Distribution Division, Roorkee (Urban) for the period April 2017 to March 2018 was carried out in exercise of the power conferred by section 19 of the C&AG, DPC, Act 1971 read with section 143 of Companies Act, 2013. Audit Inspection was conducted by Shri A. P. Singh, AAO and Shri Vikas Dhyani, AAO under the partial supervision of Shri Mukesh Kumar, Sr. AO during the period from 11.07.2018 to 20.07.2018.

Part-I

1. **Introduction:-** The last audit of this unit was carried out by Shri Vikas Dhyani, AAO and Shri Sunil Verma, Sr. Auditor under the partial supervision of Shri Mukesh Kumar, Sr. AO in which accounting records of the period from April 2016 to March 2017 were generally examined. In current audit, accounting records of the period from April 2017 to March 2018 were generally examined.

2. (i) **Functions and geographical jurisdiction of the unit:**

The function of the Electricity Distribution Division, Roorkee (Urban) is to distribute electricity to all over urban area of Roorkee town and keep as well as expand the electricity distribution system to this area. The geographical jurisdiction of the division is within the area of Roorkee under Haridwar District.

(ii) **Auditing methodology and scope of audit:**

Electricity Distribution Division, Roorkee (Urban) was covered in the audit. Inspection reports of all independent Drawing and Disbursing officers are being issued separately. This inspection report is based on findings of audit and March 2018 was selected for detailed examination and July 2017 was selected for Arithmetical Accuracy.

(iii)

(₹ in lakh)

Year	Revenue	Expenditure	Profit
2017-18	17520.81	1684.23	--

(To the extent this information is available & applicable)

(iv) Organisation structure of the unit and reporting lines.

The Electricity Distribution Division Roorkee (Urban) is an electricity distribution division of UPCL which is officiated by the Executive Engineer.

Part-IIA

Para 1: Non recovery of additional security amounting to ₹ 2.48 crore

As per para 2.2.1 of UERC Regulations 2007, security of the consumers should be assessed in end of each financial year in respect of those consumers who have been given the connection for supply of electricity, the security should be equal to average consumption of two month bill of the financial year. In case security reassessed exceeds the amount of security already deposited, the differential amount will be demanded as additional security by given a notice to the consumers within the 45 days. In case the additional security which is not deposited within the stipulated period, the electricity supply of such consumers can be disconnected.

Scrutiny of billing files and other related records of the large & heavy consumers for the period April 2011 to March 2018, it was noticed that the average two months bills of consumers exceeded the amount of security already deposited worked out to ₹ 2.72 crore as on 31st March 2011 which decreased to ₹ 1.35 crore as on 31st March 2014 and slightly increased to ₹ 1.88 crore as on 31st March 2016 but drastically increased to ₹ 2.64 crore as on 31st March 2017. During the year 2017-18, the amount of additional security required worked out to ₹ 2.48 crore. As per circular in question, amount of this additional security was required to be recovered within 45 days i.e. 15 May 2018. This amount should have been recovered from consumers well in time.

Division accepted the audit observation and stated in its reply that efforts are being made to recover additional security from defaulting consumers. Notices have been issued to the defaulting consumers for realization of additional security and disconnections of defaulting consumers would be made in case of non deposition of additional security by them. But the fact remains that as additional security amounting to ₹ 2.48 crore pertained to the financial year 2017-18 which should have been realized within 45 days i.e. 15th May 2017. But the same is still unrealized.

The matter was brought to the notice of the higher authorities.

Part- II- B

Para 1: Avoidable loss of energy in distribution

The main function of the Company is to receive the energy and distribute it among the consumers in such a way that loss of energy in distribution (line losses) should not exceed the norms fixed by the UERC. The distribution loss trajectory approved by UERC is 16.00 *per cent* for the year 2011 to 2014, 15.50 *per cent* for the year 2014-15 and 15.00 *per cent* for the year 2015-16, 2016-17 & 2017-18. To achieve the norm, UERC also identified some causes due to which there is loss of energy in distribution and suggested remedial measures to achieve the norms in respect of line losses as fixed by it.

The causes and norms for line losses are as under:-

Causes:-

- (i) Un-authorized extraction of electricity.
- (ii) Defective metering system.
- (iii) Wrong estimation of consumed energy.
- (iv) Non-rectification of defective system in due course.

Measures:-

- (i) Installation of Electronic meters to control theft.
- (ii) Regular checking of unauthorized extraction of electricity.
- (iii) Rectification of defective system in due course.

During test check of relevant records of the division, it was noticed that there was 35.69 *per cent* in 2014-15, 36.28 *per cent* in 2015-16, 36.43 *per cent* in 2016-17 and 30.96 *per cent* in 2017-18 distribution loss against the permissible limit fixed by the UERC (16.00 *per cent* in 2008-11, 15.50 *per cent* in 2014-15 and 15.00 *per cent* for 2015-16, 2016-17 & 2017-18). During the period 2017-18, division suffered a loss of ₹ 22.52 crore.

The detail in this regard has been worked out in the table given below:

Sl. No.	Particular	Year				
		2011-2014	2014-15	2015-16	2016-17	2017-18
1.	Energy received	1477.31	578.720	621.259	638.571	553.284

	during the period					
2.	Sale of energy	1047.23	372.198	395.880	405.929	381.967
3.	Loss of energy (in <i>per cent</i>)	29.11	35.69	36.28	36.43	30.96
4.	Loss of energy	430.08	206.522	225.379	232.642	171.317
5.	Permissible losses (in <i>per cent</i>)	16.00	15.50	15.00	15.00	15.00
6.	Permissible losses	236.37	89.702	93.189	95.786	82.991
7.	Avoidable loss of energy in distribution	193.71	116.82	132.19	136.856	88.326
8.	Minimum cost of energy through rate per unit(Domestic) (₹)	2.15	2.30	2.40	2.45	2.55
9.	Total Avoidable Loss (₹)	41,64,76,500	26,86,86,000	31,72,56,000	33,52,97,200	22,52,31,300

It is evident from the above that the division failed to control the loss of energy in distribution during the period from 2008 to 2018. Despite pointed out by audit again and again during this period, the target for line loss fixed by UERC has never been achieved by the division. Had the division taken the measures as suggested by UERC then this loss would have been minimized.

Division stated in its reply that efforts are being made to achieve the target of 15 *per cent* of line loss. Old conductors are being replaced with Ariel Bunch Conductor in the theft prone area. Regular checking of connection is also being made to control the theft of electricity in that area as a result of which line loss was partially reduced. The reply of the division is not convincing as despite all these efforts the losses are too high. Had the division taken the measures as suggested by UERC then this loss would have been minimized to the extent of ₹ 22.51 crore during 2017-18.

The matter was brought to the notice of the higher authorities.

Para 2: Poor maintenance of DTR Metering

Part A of R-APDRP scheme includes Metering of Distribution Transformers and Feeders, and Automatic Data Logging for all Distribution Transformers and Feeders. The main objective is to acquire meter data from selected DTR's, Feeders, HT services, and Boundary meters automatically from remote avoiding any human intervention, monitor important distribution parameters, use meter data for accurate billing purposes and generate exceptions and MIS reports for proper planning, monitoring, decision support and taking corrective actions on the business activities by the management. It will help in reduction in AT&C losses; establishment of IT enabled energy accounting / auditing system, improvement in billed energy based on metered consumption and improvement in collection efficiency.

As per records/details of damaged/bypass DTR metering system installed in Roorkee town area, it was observed that during the period 2014-15, a total number of 144 meters/ modems were installed against which only 71 (57.29 *per cent*) meters/modems were working/ communicative. Remaining 73 (42.71 *per cent*) were not working/non-communicative as on July 2015 while during 2016-17, a total number of 222 meters/ modems were installed against which only 108 (57.29 *per cent*) meters/modems were working/ communicative as on August 2017. Remaining 114 (42.71 *per cent*) were not working/non-communicative. During 2017-18, a total number of 144 meters/ modems were installed against which only 65 (57.29 *per cent*) meters/modems were working/ communicative. Remaining 79 (42.71 *per cent*) were not working/non-communicative as on May 2018 which is beyond control, this will adversely affect accuracy of energy inflow/ outflow and measurements of AT&C losses and shows that one of the basic objective of implementation of Part A of R-APDRP scheme, to record accurate inflow/ outflow of energy, to reduce AT& C losses and to improve revenue collection efficiency was defeated.

Division accepted the audit observation and stated in its reply that failure in DTRs metering is due to regular fault at the site. At present, all the DTRs meters/ modems are being checked and repaired and the test division is being informed to replace/ repair damaged meters. The reply of the division is not convincing as more than 40 *per cent* of modems were non-communicative till date which shows that purpose of installation of DTR metering system in Roorkee town is defeated. Also, efforts to control the failure of DTR metering were not sufficient.

The matter was brought to the notice of the higher authorities.

Para 3: Non Compliance of UERC Directions

As per Uttarakhand Electricity Regulatory Commission (Release of new HT & amp; EHT Connections, Enhancement and Reduction of Loads) Regulations, 2008, voltage of supply to an applicant shall be as under:

1. Load more than 88 kVA and upto 3000 kVA 11 kV
2. Load more than 3000 kVA and upto 10000 kVA 33 kV
3. Load more than 10000 kVA and upto 50000 kVA 132 kV
4. Load more than 50000 kVA 220 kV

Provided that applicants shall be allowed to take connection at voltage higher than voltage of supply indicated above.

During scrutiny of records relating to commercial consumers (RTS-2), it was revealed that the connection was released on 0.4 kV Line to three commercial consumer namely M/s ADM Darga Piran Kaliyar, M/s Government Works shop, and Director N.I.H. whose contracted load were more than 88 kVA. The same should have been sanctioned at 11 kV line but this was not done by the division. This resulted in violation of UERC Regulation, 2008.

Division accepted audit observation and stated in its reply that connections of these consumers would be shifted to the 11 KV line as per UERC Regulations and same would be intimated to audit. However, the fact remains that these connections should have been released at 11 kV line failing which resulted in violation of UERC Regulation, 2008.

The matter was brought to the notice of higher authorities.

Para 4: Non realization of Revenue in respect of commercially used electricity

Electric Rickshaw or E Rickshaw are eco-friendly and pollution free as are fitted with batteries and charged using electricity. They have been becoming more popular as an alternative to auto rickshaws and pulled rickshaws because of their low fuel cost, and less human effort compared to pulled rickshaws. They are being widely accepted as an alternative to petrol/diesel auto rickshaws.

During scrutiny of records, it was observed that in the area under the jurisdiction of EDD (Urban) Roorkee, a number of e-rickshaws are plying on the road. An e-rickshaw normally operates on battery. The battery should be charged on daily basis. Thus, the daily fuel requirement of an e-rickshaw is the electricity only to charge its battery. In order to get fully charged, a battery needs 8 to 10 hours and consumes 5 to 6 units of electricity. All the e-rickshaws needs electricity on daily basis and the purpose of this particular use of electricity is commercial. Hence, the charge of electricity should be as per commercial tariff/category.

Division stated in its reply that division has no details for charge of electricity as per commercial tariff/ category in charging of E-rickshaws nor there is any separate tariff fixed by UERC for charging of E-rickshaws. Necessary action would be taken after receiving direction/ guidance from Hqrs. Office in this regard. The reply of the division is not convincing as UPCL never tried to calculate the number of E-rickshaws plying under its jurisdiction and verify/check how these e-rickshaws are using electricity to get their battery charged. No pursuance from Regional Transport office, Roorkee regarding verification/details of the persons who has registered as e-rickshaw owner in the RTO office was made by division/ UPCL.

The matter was brought to the notice of higher authorities.

Para 5: Delay in laying of 33KV underground line on deposit work.

Indian Institute of Technology requested on 23.08.2017 for 10 MVA dedicated feeder in addition to existing feeder employing underground 33 KV cable from 220 KV Ramnagar substation to 33 KV IIT Roorkee substation. An estimate under deposit work of ₹ 8.57 crore was prepared by EDD (U) Roorkee for the said work on 06.01.2018 with certain conditions which inter alia states that the work would be completed within 9 months which includes two months for finalizing tender process, two months for obtaining NOC from different departments and thereafter five months for completing the work. Accordingly IIT Roorkee deposited the amount of ₹ 8.57 crore on 31.01.2018.

During scrutiny of records, it was observed that even tender for said work has not been finalized by the division after lapse of five months from the date on which amount was deposited by IIT, Roorkee.

Division in its reply stated that the tender of above work would be finalized by Superintending Engineer, EDC Roorkee and still time is left for completion of above work as work should have been completed within nine months and, the work will be completed within time.

The reply of the division is not convincing as the time provided in the estimate was nine months and more than five months have been lapsed and tender has not been finalized till date. The chances of completion of above work in nine months are bleak. The matter will be watched in next audit.

The matter was brought to the notice of higher authorities.

Part III

(In this part, detail of unsettled paras of previous inspection reports to be reported in below given format.)

Details of unsettled paras of previous inspection reports:-

Sl. No.	Period	Part II-A	Part II-B
1.	1/2004 to 3/2005	1 & 2	1 to 9
2.	4/2005 to 3/2006	-	03
3.	4/2006 to 3/2007	1	1 to 4
4.	4/2007 to 3/2008	1 & 2	1 to 3
5.	4/2008 to 3/2011	1	1 to 4
6.	4/2011 to 3/2014	1 & 2	1 to 3
8.	04/2014 to 03/2015	1	1 to 5
9.	04/2015 to 03/2016	1	1 to 4
10.	04/2016 to 03/2017	1 to 4	1 to 7

Compliance report of unsettled paras of previous inspection report-

Inspection report period and number	Para No. Audit observation	Compliance report	Comments of Audit Party	Remarks
-	-	-	-	-

Part IV

Best practices of the unit

NIL

Part V

Acknowledgement

1. Office of the Principal Accountant General (Audit) Uttarakhand, Dehradun expresses gratitude towards Electricity Distribution Division, Roorkee (Urban) and their officers and employees for promptly providing desired documents and information including infrastructure related co-operation during the course of audit.

Though following documents were not produced during audit:

NIL

2. **Persistent irregularities.**

NIL

3. **The following officers held the charge of head of the office during the audit period:**

Sr. no.	Name	Post
(i)	Shri Anoop Kumar Saini (since last audit to till date)	Executive Engineer

Minor and operational irregularities which could not be resolved at the time of audit and have been included in Temporary Audit Note with the request that the compliance report on the same may be sent to Sr. DAG/DAG (concerned sector) within one month of receipt of the letter.

Sr. AO/ES-I